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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,841	08/29/2003	Graham F. Thieman	9501-73179	2842

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EXAMINER

DUONG, THANH P

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/652,841

Applicant(s)

THIEMAN ET AL.

Examiner

Tom P. Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/29/03; 1/21/04; 1/22/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1 and 5-12 are rejected under 35 U.S.C. 102(a, e) as being anticipated by Sakurai et al. (6,397,586). Regarding claims 1 and 5-7, Sakurai et al. '586 discloses an emission abatement device (Figure 1) comprising: first (13) and second conduits (15) secured to one another at upstream and downstream openings, the first conduit comprising an intermediate portion extending from the upstream opening to the downstream opening, a 3-way catalyst (14) positioned in the first conduit (13) downstream from the downstream opening, a hydrocarbon trap (16) positioned in the second conduit, and a valve (17) positioned in the intermediate portion, the valve being movable between (i) a closed position to block passage of exhaust gas through the

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intermediate portion to force the exhaust gas into the second conduit for passage through the hydrocarbon trap to the 3-way catalyst, and (ii) an opened position to allow passage of exhaust gas through the intermediate portion and the hydrocarbon trap to the 3-way catalyst (Figure 1 and Col.6-Col 9); and a controller (25) to operate on a butterfly valve (Col. 17, lines 6-10). Regarding claims 8-12, Sakurai et al. '586 discloses an emission abatement device (Figure 11) comprising: a housing (160), a tube (164) positioned in the housing (160) to define an outer passageway therebetween, a hydrocarbon trap (162) positioned in the outer passageway, a 3-way catalyst positioned downstream (14) from the hydrocarbon trap, and a valve (Figure 11) movable between (i) a closed position to block passage of exhaust gas through the tube to force the exhaust gas into the outer passageway to pass through the hydrocarbon trap to the 3-way catalyst and (ii) an opened position to allow passage of exhaust gas to the 3-way catalyst through the outer passageway and the hydrocarbon trap and through the tube; and a controller operate on the butterfly valve (Col. 20 – Col. 24). Note, the manner of operating a device does not differentiate apparatus claim from the prior art. See *Ex parte Masham*. MPEP 2114. Note, instant claims 8-10 structurally read on the apparatus of Sakurai et al. '586.

2. Claims 1 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto et al. (5,544,482). Regarding claims 1 and 5-6, Matsumoto '482 discloses an emission abatement device (Figure 2) comprising: first (17) and second conduits (12,16) secured to one another at upstream and downstream openings, the first conduit

comprising an intermediate portion (17) extending from the upstream opening to the downstream opening, a 3-way catalyst (14) positioned in the first conduit (17) downstream from the downstream opening, a hydrocarbon trap (13) positioned in the second conduit, and a valve (18) positioned in the intermediate portion, the valve being movable between (i) a closed position to block passage of exhaust gas through the intermediate portion to force the exhaust gas into the second conduit for passage through the hydrocarbon trap to the 3-way catalyst, and (ii) an opened position to allow passage of exhaust gas through the intermediate portion and the hydrocarbon trap to the 3-way catalyst (Figure 3 and Col. 6, lines 4-65); and a controller (5) to operate on the valve (18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. '482. Regarding claims 2-4, Matsumoto et al. '482 discloses the valve (18), the a hydrocarbon trap (13) and the 3-way catalyst structure (14) with the first (17) and second conduits (12,16), which provide proper valve control for a cold start condition and a normal operating condition (Col. 4, lines 4-56). The mere difference in

the arrangement of the valve, the hydrocarbon trap, and the 3-way catalyst with respect to the first and second conduits versus the claimed invention is an obvious matter of design choice to one having ordinary skill in the art since the difference the configuration of Matsumoto et al. '482 provide the same function of purifying the exhaust gas for a cold start and normal operating condition and such rearrangement of parts does not alter the operation of the device. See *In re Japikse*. MPEP 2144.04

Regarding claim 7, it is conventional to provide a butterfly valve in the emission abatement system and it would have been obvious to do so here to facilitate in controlling a variable exhaust flowrate.

4. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. '586. Regarding claims 2-4, Sakurai et al. '586 discloses the valve (17), the a hydrocarbon trap (16) and the 3-way catalyst structure (14) with the first (13) and second conduits (15), which provide proper valve control for a cold start condition and a normal operating condition (Col.6-Col 9). The mere difference in the arrangement of the valve, the hydrocarbon trap, and the 3-way catalyst with respect to the first and second conduits versus the claimed invention is an obvious matter of design choice to one having ordinary skill in the art since the difference in the configuration of Sakurai et al. '586 provide the same function of purifying the exhaust gas for a cold start and normal operating condition and such rearrangement of parts does not alter the operation of the device. See *In re Japikse*. MPEP 2144.04. .

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Duong
September 12, 2006

T.D.


Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700